
Multi-purpose Serial Data Link

The MSDL provides 4 ports for applications such as

- ISDN Primary Rate D-channel (DCH)
- Application Module Link (AML)
- Input/output devices (TTY)

The MSDL messages report problems with the MSDL card and its applications. MSDL commands are provided in LD 37, LD 48, and LD 96.

MSDL messages

MSDL0001	The number of parameters for the MSDL command is incorrect.
MSDL0002	The card number in the command is out-of-range or invalid.
MSDL0003	Since this command is only valid for use on the MSDL card in this Overlay, the first parameter must be MSDL.
MSDL0004	Cannot reset the card (or execute self-tests) right now because the card is not in Manually Disabled state (MAN DSBL).
MSDL0005	Failed to reset; could not write command to card. Card is probably not present, or the (address) switch settings on the card do not agree with the database.
MSDL0006	Cannot enable the card unless it is in Manually Disabled (MAN DSBL) state.
MSDL0007	Cannot disable card unless it is in the Enabled (ENBL) state.
MSDL0008	Cannot reset the card (or execute self-tests) on the card right now since the device enabled bit is set, meaning a message response is currently pending. Action: Attempt the self test command again; when the response pending

condition clears, as long as the card is Manually Disabled, the reset (and self tests) should execute.

MSDL0011 No response received to the enable card command.

MSDL0012 The response message from the card to the Overlay indicates failure to enable/disable.

MSDL0014 No response received to the disable card command. The card is set to the Manually Disabled (MAN DSBL) state anyway.

MSDL0015 The command entered requires that a message be sent to the MSDL. The Meridian 1 was unable to build the message since the buffer was not free. Try again later. If this message continues to be generated, then:

Action: If the card is enabled, wait for a few minutes, as the card may have encountered a problem that warrants recovery, or if the card is manually disabled, reset the card using the RST MSDL x command, or execute self tests using the SLFT MSDL x command.

MSDL0016 Failed enable attempt. If this message is not accompanied by any other error message, the card may be in the process of performing self-tests or the self-tests may have already failed.

Action: Wait a few minutes, then execute the self-tests with the SLFT MSDL x command. If self-tests pass, try to enable the card again.

MSDL0017 At least one of the ports on the MSDL is currently enabled. Disabling the card is disallowed when ports are enabled unless the DIS MSDL x ALL command is used.

MSDL0018 The fourth parameter of the command is unrecognized or unimplemented.

MSDL0019 The command entered required that information be read from the MSDL. The specified MSDL is not present in the system, and the information could not be read.

MSDL0020 The command entered required that the application information block on the MSDL be read by the Meridian 1. The block is currently being updated by the MSDL, and the system could not read the block.

Action: Try again.

MSDL0021 Began to download the MSDL basecode but stopped before finishing. There should be an accompanying SDL error message, so refer to the information on that message for the failure reason.

MSDL0022	The rest of the information output in response to this command is resident on the card. The card is not enabled, and the information cannot be read.
MSDL0024	The Meridian 1 began to download an MSDL application but stopped before finishing. Action: Refer to the information in the accompanying SDL error message.
MSDL0025	There is currently maintenance activity on the application in question. Action: Wait a few minutes and try again.
MSDL0026	Disabling the MSDL when the active TTY is supported by it is not allowed.
MSDL0027	Time out waiting for the self tests to complete. Action: Wait at least five minutes, then try again. Under certain unusual circumstances, self-tests can take approximately five minutes; however, this should only occur when the flash EPROM on the card is new or has been completely erased.
MSDL0028	Cannot enable the card because it is not present in the system. Action: If the card in question is believed to be present, check if the switch settings on the card agree with the device number entered in this command.
MSDL0029	Incorrect password entered in response to the ENL MSDL x DBG command.
MSDL0030	The debug option for this card has already been turned on.
MSDL0031	The ENL MSDL x ALL command is only valid when the MSDL is in the ENBL or MAN DSBL state.
MSDL0032	The MSDL card was removed from its slot, or the card reset itself during the self-tests. Action: If the card was removed, execute the self-tests again and do not remove the card from its slot until the tests are complete. If the card was not removed, execute the self-tests again. If this message appears more than twice, replace the MSDL card.
MSDL0100 x	The CSTAT and CSUBSTAT fields on MSDL x indicate the card is Manually Disabled. The Meridian 1 believes the card is Enabled. The card is placed in the System Disabled - Self- tests Passed state, and within the next few minutes, the Meridian 1 will attempt to enable the card.

MSDL0101 x	The CSTAT field on MSDL x indicates the card is no longer Enabled. The Meridian 1 will attempt to return the card to an Enabled state within a few minutes. Under certain conditions, this message is output at the same time as MSDL302.
MSDL0102 x	No response was received from MSDL x to a background polling message sent periodically to each MSDL card. The purpose of this message is to ensure that the card is capable of receiving and sending messages.
MSDL0103 x	An Overlay was waiting for a message from MSDL x. Most likely, the Overlay is no longer loaded. The message the Overlay was waiting for was never received.
MSDL0104 x	The MSDL background audit sent a message to MSDL x, and did not receive a response.
MSDL0105	The CSTAT value read from the MSDL is invalid. This indicated one of two error conditions: 1. The card has encountered a severe hardware fault so that it is unable to report the error to the Meridian 1. 2. There may be multiple cards in the system with the same device number (switch settings) as the MSDL. When the CSTAT is read from the MSDL, it may not be the MSDL card that is responding. Action: Be sure no other cards in the system share the device number. If so, change the device numbers. If not, replace the card.
MSDL0106 x appl	The MSDL audit detected that there was no response to a maintenance message originated by an application (appl) on MSDL x.
MSDL0107 x appl y	The Meridian 1 was unable to determine if downloading was necessary. An SDL error message should accompany this message and describe the reason for the failure. Three fields accompany this message: x = device number (LD 17 DNUM), appl = the application name, and y is for design use only.
MSDL0108 x appl	An application on MSDL x needs to be downloaded to the card. Downloading begins as soon as there is no Overlay loaded. Where: x = device number (LD 17 DNUM) and appl = the application name.
MSDL0112 x	MSDL x has been reset in order to begin automatic recovery. Immediately following this message, the card is executing self tests. When they are finished, provided they pass, the Meridian 1 will attempt to enable the card. Where: x = device number (LD 17 DNUM).
MSDL0201 x appl	MSDL x sent a message to the Meridian 1 indicating an application data space has been corrupted. Where: x = device number (LD 17 DNUM) and appl = the application name.

MSDL0202 x appl MSDL x sent a message to the Meridian 1 indicating that an application on the card unexpectedly disabled itself (performed a “close”). Where: x = device number (LD 17 DNUM) and appl = the application name.

MSDL0204 x appl The Meridian 1 searched the system disk to find a version of an application for MSDL x and found none.

Where: x = device number (LD 17 DNUM)

appl = the application name.

MSDL0205 x appl y z An error was encountered when searching the system disk to find a version of an application for MSDL x. Refer to an accompanying SDL error message for the exact error reason. This message indicates that the Meridian 1 will attempt to enable the application in question if a version exists on the card.

Where: x = device number (LD 17 DNUM)

appl = the application name

(ypandpz are for design use only)

MSDL0206 x appl y z An error was encountered when comparing a version of an application on the system disk with the version on MSDL x.

Where: x = device number (LD 17 DNUM)

appl = the application name

(ypandpz are for design use only)

Action: Refer to the accompanying SDL error message for the exact error reason. This message indicates that the Meridian 1 will attempt to enable the application if a version exists on the card.

MSDL0207 x appl y z An error was encountered when downloading an application to MSDL x.

Where: x = device number (LD 17 DNUM)

appl = the application name

(ypandpz are for design use only)

Action: Refer to the accompanying SDL error message for the exact error reason. The entire enable sequence has been aborted.

MSDL0208 x When preparing to download the base software to MSDL x, the card indicated that some kind of fatal error was encountered. Where: x = device number (LD 17 DNUM).

Action: Execute self-tests before attempting any other action regarding this card.

MSDL0209 x y z Some memory was reclaimed within the MSDL for future use. An application on MSDL x requested that a buffer pool be freed. When this occurred, there was at least one outstanding buffer. The basecode waited for the buffer(s) to be returned to the pool before freeing the buffers, but it never returned. The buffer pool was forcibly freed by the basecode.

Where: x = device number (LD 17 DNUM)

(y and z are for design use only).

MSDL0210 Failed to enable the MSDL for one of the following reasons:

The card in question is not an MSDL card. For example, there may be a card in the system with switch settings that correspond to the MSDL, but is in fact not an MSDL card.

There is at least one other card in the system with switch setting identical to the MSDLs.

Action: Remove the card with the same device number as the MSDL.

MSDL0300 data The MSDL background audit has changed the card state. In the cases where the card was previously enabled and now is no longer enabled, another MSDL message will indicate the reason for the state change. When making a state transition due to a fatal error on the card, the reason for the fatal error is displayed in this message. This is an informational message and requires no action by the craftsperson.

Output data: MSDL300 x FROM: aaaa TO: bbbb TIME time REASON cccc

Where:

x = MSDL card number (in decimal)

aaaa = the status of the MSDL prior to the state change

bbbb = the state of the card after the state change

time = the time of the state change

cccc = reason for the error (only when "TO: SYS DSBL - FATAL ERROR")

MSDL0301 x y z An expedited data unit was received. The Meridian 1 is not expecting MSDL x to generate any messages in its current state. However, immediately following a state transition to a disabled state, a pending message may cause this message to be displayed. This informational message indicates that the incoming message from the card was not processed due to the state change. No action is required.

Where: x = device number (LD 17 DNUM)

appl = the application name

(ypandpz are for design use only)

- MSDL0302 x y** Access to the memory space shared by the Meridian 1 and the MSDL (Shared RAM) has been momentarily suspended by MSDL x. There is no specific action to be taken as a result of this message; however, it indicates that message transfer between the Meridian 1 and the card ceased momentarily.
- Where: x = device number (LD 17 DNUM) and y = the reason for the suspension. Currently the only reason supported is the value "1," which indicates that some kind of buffer corruption was detected.
- MSDL0303 x y** The Meridian 1 detected corruption in either the receive ring or the transmit ring or both, causing access to the memory space shared by the Meridian 1 CPU and MSDL x (Shared RAM) to be momentarily suspended.
- Take no action because of this message; however, it indicates that message transfer between the Meridian 1 and the card ceased momentarily.
- Where: x = device number (LD 17 DNUM) and y = a decimal number indicating where the corruption was detected. 1 means receive ring, 2 means transmit ring, and 3 means both receive and transmit rings.
- MSDL0304 x y** The Meridian 1 received 100 or more messages from MSDL x within two seconds. At this level of message transfer, there may be some impact to the overall system performance. The level of service does not warrant removing the card from service.
- Where:
- x = device number (LD 17 DNUM)
- y = the rate of message transfer from the card to the Meridian 1 in terms of messages per second.
- MSDL0305 x y** The Meridian 1 received 200 or more messages from MSDL x within two seconds. At this level of message transfer, there may be some impact to the overall system performance. The level of message transfer does not warrant removing the card from service.
- Where: x = device number (LD 17 DNUM)
- y = the rate of message transfer from the card to the Meridian 1 (in terms of messages per second)
- MSDL0306 x y** The Meridian 1 has received 300 or more messages from MSDL x within one second. At this level of message transfer, there may be some impact to the overall system performance. The level of message transfer warrants removing the card from service.
- Where: x = device number (LD 17 DNUM)

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y = the rate of message transfer from the card to the Meridian 1 (in terms of messages per second)

MSDL0307 x data MSDL x encountered a fatal error. Where: x = device number (LD 17 DNUM).
The data following x is information read from the card regarding the error and is intended for design use only.

MSDL0308 x y appl data MSDL x reported that it received a message with an invalid (bad) socket ID.

Where:

x = device number (LD 17 DNUM)

y = the socket ID appl = the application name

data = up to eight words of hex data representing the message sent

MSDL0450 When an SDI port is configured on an MSDL and the Meridian 1 initializes, it may be discovered, during initialization, that the MSDL basecode or SDI application needs to be downloaded. If so, there will be a period of time following the INIT (1 to 5 minutes) where the SDI port will not function. The port automatically enables itself once downloading has completed.